

Missouri Department of Natural Resources

Total Maximum Daily Load Information Sheet

Kelley Branch

Water Body Segment at a Glance:

County: Boone
Nearby Cities: Columbia
Length of impairment: 1 mile
Pollutant: Sediment
Source: Off-Road Vehicles (ORVs)
in Finger Lakes State Park



State map showing location of watershed

TMDL Priority Ranking: TMDL approved 2003

Description of the Problem

Beneficial uses of Kelley Branch:

- Livestock and Wildlife Watering
- Protection of Warm Water Aquatic Life
- Human Health Protection (Fish Consumption)

Use that is impaired

- Protection of Warm Water Aquatic Life

Standards that apply

General criteria are contained in Missouri's Water Quality Standards 10 CSR 20-7.030 (3). The criteria that apply to Kelley Branch are (A), (C) and (G), and they state:

- (A) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
- (C) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
- (G) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;

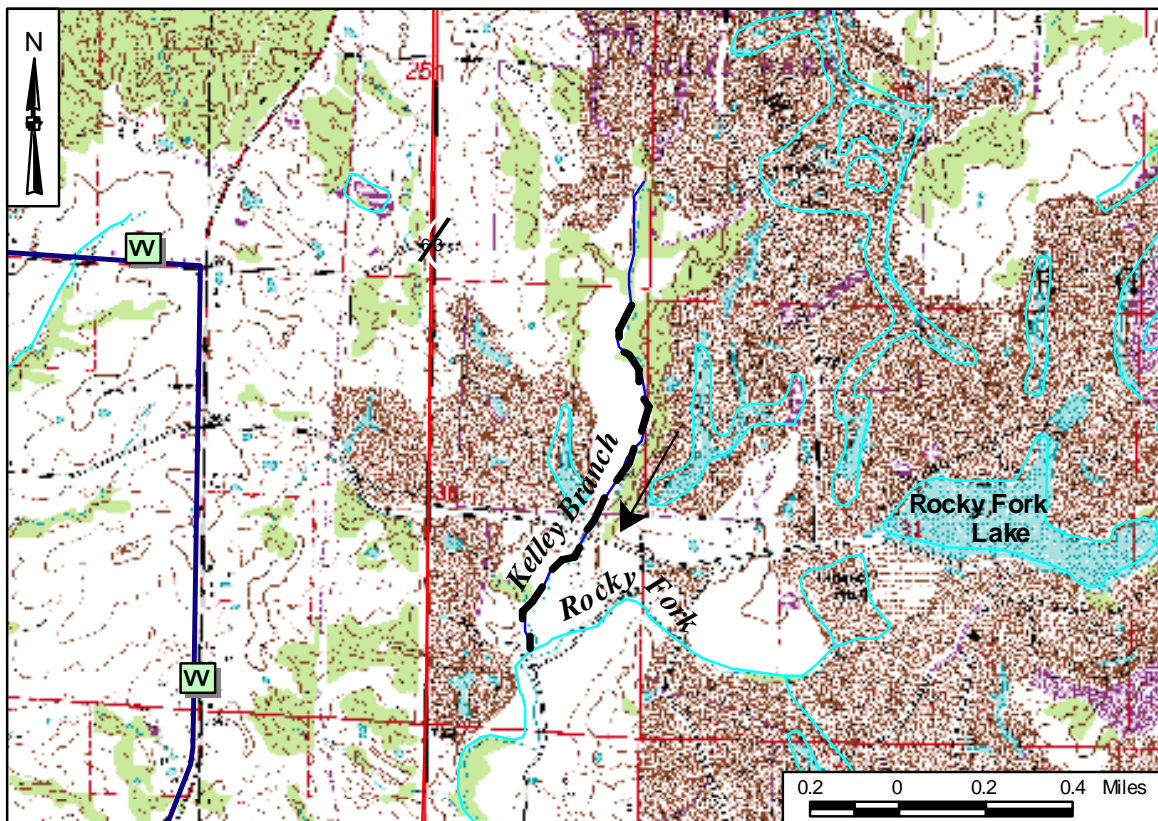
Background Information

Several hundred acres of strip mined land about six miles north of Columbia were acquired by the Department of Natural Resources in 1974 and named Finger Lakes State Park. The park topography consists of small, steep-sided hills with many small ponds in between. This has made the area a favorite spot for recreational off-road vehicle (ORV) use. Many ORV trails frequently cross or travel the stream channel of Kelley Branch itself. Aquatic habitat has been degraded and in

some areas completely eliminated, leaving the channel resembling a well traveled gravel road. Immediately south of the State Park, Kelley Branch joins Rocky Fork, and while this portion of the stream is not directly impacted by ORV traffic, it shows evidence of heavy sedimentation, much of which may have occurred before the mined areas became well vegetated. Approximately one-half mile of Kelley Branch has impaired aquatic habitat, and another half-mile has lost aquatic habitat due to ORV traffic in the stream. About one-half mile of Rocky Fork has impaired aquatic habitat due to excessive sedimentation, which appears to be eroding from the stream or riparian areas of Kelley Branch within the state park. The park management plan establishes designated trails and “use zones” throughout the park using “hardened” stream crossings, and restores and protects the riparian border along the stream. An educational component will be included to gain park users’ support and cooperation. The work is ongoing, completion is expected when funding is available. The U. S. Environmental Protection Agency approved a Total Maximum Daily Load document for Kelley Branch and Rocky Fork on December 19, 2003. That document outlined best management practices in the state park management plan designed to address the sedimentation problem.

More details about Rocky Fork may be found in the Rocky Fork TMDL Information Sheet. See a map of the area on the next page.

Map of Impaired Portion of Kelley Branch in Boone County, Missouri



--- Impaired Segment → Direction of Flow

For more information call or write:

Missouri Department of Natural Resources

Water Protection Program

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